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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/869,492	06/28/2001	Alan Anderson Hoover	RCA 89855	4186

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EXAMINER

MICHALSKI, JUSTIN I

ART UNIT

PAPER NUMBER

2644

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/869,492

Applicant(s)

HOOVER, ALAN ANDERSON

Examiner

Justin Michalski

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3 and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Albean (EP 0584718 A1).

Regarding Claim 1, Albean discloses a stereophonic expansion circuit having (L+R) and (L-R) signal paths (Figure 4), comprising: means for processing (L+R) and (L-R) stereo signals (38), and means for tonal compensation of the (L+R) signal (filters 48, 53, and matrix 38).

Regarding Claim 2, Albean further discloses the tonal compensation of the (L+R) signal is in the bass and/or treble frequency bands (low pass filter 53).

Regarding Claim 3, Albean further discloses input Low pass filter 48 which reduces the mid-range frequency signals before the L+R signal is compensated at filter 53.

Regarding Claim 7, Albean further discloses a switchable gain boost (switch 50, switches input through filter 48, i.e. boost) is provided in a L-R signal path (switch 50 is in the path of the L-R signal).

Regarding Claim 8, Albean further discloses wherein the gain compensation (filter 48) of the L+R signal is switched "OFF" (i.e. does not pass through filter 48) when tonal compensation is switched "OFF" (switch 50 bypasses filter 48).

Regarding Claim 9, Albean further discloses the tonal compensation of the (L+R) signal is with respect to the (L-R) signal (L+R signal (output of 53) is input to matrix 38 along with L-R to produce outputs L and R) (i.e. tonal compensation).

3. Claim 10 is rejected under 35 U.S.C. 102(e) as being anticipated by Tsutsui et al. (Hereinafter "Tsutsui") (US Patent 6,169,973). Tsutsui discloses a stereophonic expansion circuit having an L+R and L-R signal paths (Figure 17; 210b and 210c; Column 17, lines 8-11) wherein the tonal compensation of the L+R signals is approximately complementary to the tonal frequency response of the L-R signal path (Tsutsui discloses the L+R signal is obtained by the inverse transform (i.e. complementary) of the L-R circuit (Column 17, lines 25-32)).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2644

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Albean as applied to claim 2 above in view of Tsutsui et al. (US Patent 6,169,973). Albean discloses a circuit as stated apropos of claim 2 above but does not disclose the L+R signal is tonally compensated to be complementary to a frequency curve of the L-R signal. Tsutsui discloses a system for decoding audio signals including stereophonic expansion of L+R and L-R signals. Tsutsui discloses the L+R signal is obtained by the inverse transform (i.e. complementary) of the L-R circuit (Column 17, lines 25-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made compensate complementary to the L-R curve in order to effectively decode the L and R channels of an audio signal.

6. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albean as applied to claim 1, in view of Yamada et al. (Hereinafter "Yamada") (US Patent 4,392,114).

7. Regarding Claim 5, Albean discloses a circuit as stated apropos of claim 1 but does not disclose wherein the tonal compensation can be switched between "ON" and "OFF" modes. It is well known in the art that tonal compensation can be switched between "On" and "OFF" modes. Yamada discloses an audio device (Figure 1) including tonal compensation (6 and 1) which can be connected or disconnected by switches SW₁ and SW₂.

Regarding Claim 6, Albean further discloses the stereo expansion circuit (Figure 4). It is inherent that if the stereo expansion is turned "off" (i.e. matrix 38 and filters 10, 53, 48) that the tonal compensation would also be turned off since tonal compensation and stereo expansion are produced by the same components.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Albean (EP 0584718 A1) in view of Tsutsui (US Patent 6,169,973). Albean discloses a stereophonic expansion circuit having an L+R and L-R signal paths (Figure 4). Albean does not disclose the tonal compensation of the L+R signals is approximately complementary to the tonal frequency response of the L-R signal path. Tsutsui discloses a stereophonic expansion circuit having an L+R and L-R signal paths (Figure 17; 210b and 210c; Column 17, lines 8-11) wherein the tonal compensation of the L+R signals is approximately complementary to the tonal frequency response of the L-R signal path (Tsutsui discloses the L+R signal is obtained by the inverse transform (i.e. complementary) of the L-R circuit (Column 17, lines 25-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made compensate complementary to the L-R curve in order to effectively decode the L and R channels of an audio signal.

9. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albean as modified as applied to claim 10, in view of Yamada et al. (US Patent 4,392,114).

Regarding Claim 11, Albean discloses a circuit as stated apropos of claim 1 but does not disclose wherein the tonal compensation can be switched between "ON" and "OFF" modes. It is well known in the art that tonal compensation can be switched between "On" and "OFF" modes. Yamada discloses an audio device (Figure 1) including tonal compensation (6 and 1) which can be connected or disconnected by switches SW₁ and SW₂.

Regarding Claim 12, Albean further discloses the stereo expansion circuit (Figure 4). It is inherent that if the stereo expansion is turned "off" (i.e. matrix 38 and filters 10, 53, 48) that the tonal compensation would also be turned off since tonal compensation and stereo expansion are produced by the same components.

Regarding Claim 13, Albean further discloses a switchable gain boost (switch 50, switches input through filter 48, i.e. boost) is provided in a L-R signal path (switch 50 is in the path of the L-R signal).

Regarding Claim 14, Albean further discloses wherein the gain compensation (filter 48) of the L+R signal is switched "OFF" (i.e. does not pass through filter 48) when tonal compensation is switched "OFF" (switch 50 bypasses filter 48).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Michalski whose telephone number is (703)305-5598. The examiner can normally be reached on 8 Hours, 5 day/week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Isen can be reached on (703)305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JIM


XU MEI
PRIMARY EXAMINER